DIAMOND VIEW

A TRADEMARK OF MITSUBISHI ELECTRIC AUSTRALIA PTY LTD

DIAMOND VIEW® 1998E

Colour Monitor

19" (48cm) CRT Size

18" (45.7cm) Viewable Area

User's Manual

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Reference Information	
For future reference, write the following information about your monitor in the space below. The serial number is on the back of the product or on the bottom of its stand.	
Monitor Information	
Product Name:	Diamond View 1998E
Serial Number:	
Date of Purchase:	
Dealer Information	
Dealer:	
Telephone Number:	
Address:	

1 Important Safety Instructions

Please read the following safety instructions before installing or cleaning your Diamond View monitor:

1. This monitor must be operated from the type of power source indicated on the rating label. If you are not sure of the type of power available in your area, consult your dealer or local electricity supply company.

2. This monitor must be operated with a 3 wire electrical cable that has a plug with a third (grounding) pin. The plug must only be connected to a grounded power outlet. This is a safety feature. Australian and New Zealand customers should use the power cable supplied with the monitor.

3. Make sure that the power outlet that you plug the monitor into is easily accessible.

4. Unplug the monitor's power cable from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a soft cloth to clean the monitor housing and screen.

5. Slots and openings on the back or top of the cabinet are provided for ventilation. They must not be blocked or covered. This product should never be placed near or over a radiator or other heat source, or in a built-in installation unless proper ventilation is provided.

6. Never push objects of any kind, or spill liquid of any kind into the monitor.

7. Do not attempt to service the monitor yourself as opening or removing covers may expose you to dangerous voltages or other risks. Removing the cover of the monitor may void warranty.

8. If any abnormal operation or an accident (such as dropping the unit) occurs, disconnect the monitor from the wall power outlet and contact a Mitsubishi Authorised Service Centre (see chapter 8 for details).

2 Features

Your Diamond View 1998E Monitor has the following features:

♦ **Plug and Play Compatibility**
With DDC-2B™, the 1998E is compatible with the Plug and Play features of Microsoft® Windows® 95, 98, 2000, XP and Millennium Edition.

♦ **Compatible with PC, Apple® Macintosh® and most other computer systems.**

♦ **Flicker-free Image**
The monitor supports VESA standard graphics signals with flicker-free refresh rates at resolutions up to 1280 x 1024 pixels at 85Hz.

♦ **Larger Viewable Size**
With its 45.7 cm (18") diagonal viewable screen size, the 1998E offers a larger viewable screen area than many other 19" CRT monitors.

♦ **Easy to Use On Screen Display**
The On-Screen Display (OSD) allows you to adjust all settings simply with on-screen menus.

♦ **Power Saving Function**
The power management complies with VESA DPMS standard. When the system is idle (off mode), the monitor automatically cuts its power consumption to less than 5 watts.

♦ **On Screen Display**
Allows you to adjust all settings simply using on-screen menus.

♦ **Optional Multimedia Base is available**
Part number DVMB1.

♦ **Green Commitment**
No CFCs are used in the manufacturing process of your monitor.

3 Unpacking the Monitor

Please check that the following items are included with your monitor. If they are missing or damaged, please contact your place of purchase immediately.

- ♦ **Monitor with attached signal cable**
- ♦ **Tilt/swivel base**
- ♦ **Power cord**
- ♦ **User's manual**

Locate the model name and the serial number label on the back of your monitor and write the details of the monitor and your place of purchase in the space on page (ii) of this manual for future reference.

4 Installation

Your monitor is equipped with an automatic power supply with a voltage range from 100 to 240 Volts AC at a frequency of 50 to 60 Hz.

To install your Diamond View 1998E monitor:

1. Make sure that the computer system's power is turned off.

2. Connect the power cord to the monitor and attach it to a power socket.
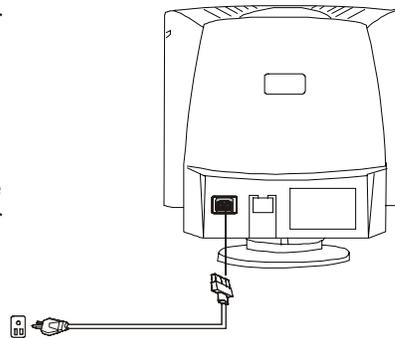
3. Connect the computer end of the D-SUB cable to the 15-pin output connector on the video board of your computer.
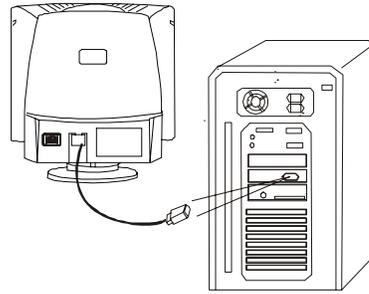
4. Turn the monitor and the computer on.

If you wish to connect the monitor to an older-type Apple Macintosh, you need to use a Macintosh cable adapter to connect the video signal cable of your monitor to the video port of the computer. Your computer dealer should be able to supply you with a suitable adaptor.

Drivers for Windows 95, 98, 2000, XP and Millennium Edition

Windows will detect the Diamond View 1998E monitor the first time you turn the computer on after installing it. The Add New Hardware wizard will prompt for drivers. Install the standard Windows *Plug & Play Monitor* driver. This driver will work correctly and allow you to use the monitor with its optimal resolutions and refresh rates.

A specific driver that includes the Windows ICC/ICM colour profile for the Diamond View 1998E is available from Mitsubishi Electric Australia's web site at

http://www.mitsubishi-electric.com.au

Follow the link to the File Downloads/Monitors section of the site to download the drivers. Installation instructions are also available from the monitor driver page.

5 Adjusting the Monitor
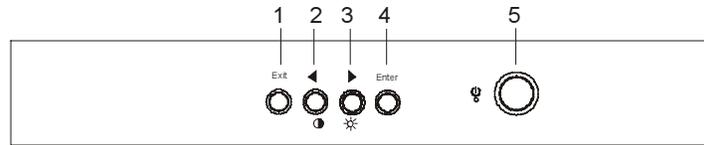
You can adjust the monitor using its On-Screen Display (OSD) menu system. There are 5 buttons that control the monitor:

1. **Exit**   Returns to the last menu page, saves changes or quits the menu system.

2. ◀ and ◐   Move to another menu item or decrease the selected parameter. Hotkey for contrast adjustment.

3. ▶ and ☼   Move to another menu item or increase the selected parameter. Hotkey for brightness adjustment.

4. **Enter**   Open a sub-menu or selects a menu item.

5. **Power Switch**   Turn the monitor on or off.

Selecting Functions and Making Adjustments

Contrast Hotkey

1. Press ◐ to open the contrast adjustment display.

2. Press ◀ or ▶ to adjust the contrast level.

3. Press the **Exit** button to save your changes.

```
┌──────────────────────────────┐
│  ◐    Contrast ───────────────── Function name
│       ▬▬▬▬▬▬▬▬▬▬▬▬□ 75 ───────── Scale
│          Exit : Save
└──────────────────────────────┘
                     └──────────── Operation instruction
```
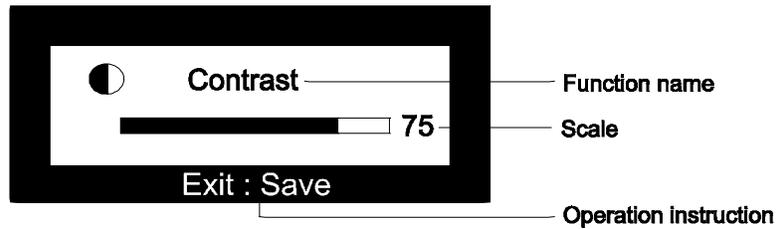
Brightness Hotkey

1. Press ☼ to open the brightness adjustment display.

2. Press ◀ or ▶ to adjust the contrast level.

1. Press the **Exit** button to save your changes.

The Main Menu

The Diamond View 1998E's OSD has a Main Menu that is organised into 6 groups of functions: Luminance, Geometry, Colour Adjustment, Recall, Degaussing and Miscellaneous. The remainder of this chapter describes the use of each function and the way that you can make adjustments to the image displayed on the monitor's screen.

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Make adjustments

1. In Main Menu: Press ◀ or ▶ to select the function group with the item that you wish to change.
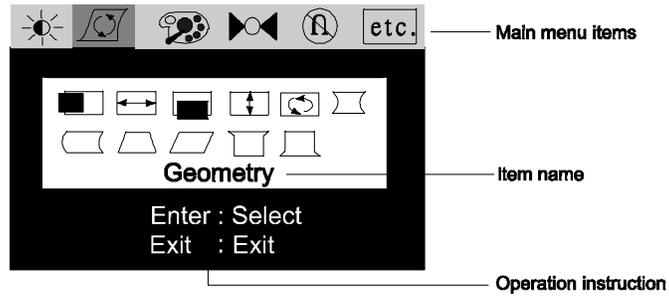
2. Press **Enter** to open the Sub Menu.
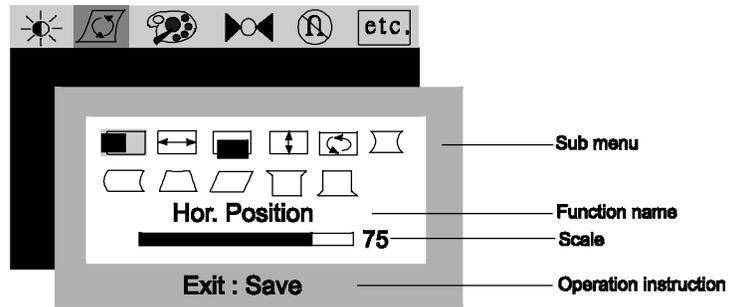
3. Press ◀ or ▶ to select the item to be changed and press **Enter**.

4. Press ◀ or ▶ again to make the adjustment.

Sub menu

Function name

Scale

Operation instruction
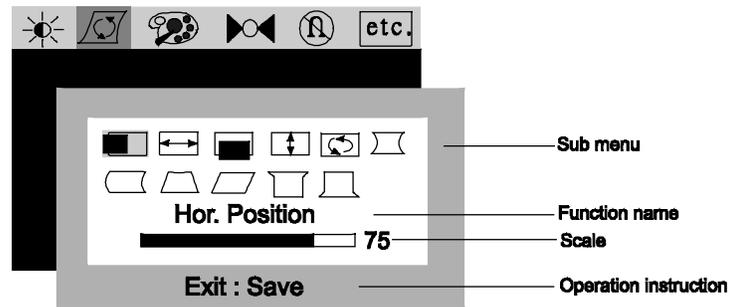
5. Press Exit to save the setting and return to the main menu.

I. ☀ Luminance

◑	**Contrast**	changes the difference between the light and dark areas of the displayed image.
☼	**Brightness**	adjusts the brightness of the displayed image.

2. Geometry

▬	**Hor. Position**	adjusts the horizontal position of the image.
↔	**Hor. Size**	adjusts the image width.
▬	**Ver. Position**	adjusts the vertical position of the image.
↕	**Ver. Size**	adjusts the image height.
↻	**Rotation**	corrects any tilting of the image.
⨆	**Pincushion**:	corrects curves in the vertical edges of the image.

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	Unbalance	adjusts the pincushion balance if both sides of the image are bowed toward either the left or the right.
	Trapezoid	makes the vertical edges of the image parallel.
	Parallelogram	aligns the top and bottom edges of the image.
	Top corner	adjusts the edge curvature at the top corners of the image.
	Bottom corner	adjusts the edge curvature at the bottom corners of the image.

3. Colour Adjustment

Colour mode	Colour Temperature (Preset Mode)	Colour Temperature (User Mode)
C1 (9300K)	**9300K**	**User Mode 1**
C2 (6500K)	**6500K**	**User Mode 2**

Preset Colour Mode: In this mode, C1 and C2 are two memory areas where the factory-preset colour settings are stored. These settings are fixed and can not be modified.

User Colour Mode: Press ◀ or ▶ to locate the colour mode and **Enter** to choose a colour. Press ◀ or ▶ again to make the adjustment. If you want to reset to preset modes, please locate ▶◁ to recall the preset colour settings

4. ▶◁ Recall/Reset and Image Status

Select ▶◁ and press **Enter** to recall the factory settings for the current graphics signal. The word "Recall" will blink on the screen in the process of recall.

This page is also a status display that shows the horizontal and vertical frequencies of the current graphics signal. Please note that the resolution is only displayed if you are using a graphics signal that corresponds with one of the monitor's presets.

5. ◎ Manual Degaussing

To eliminate colour shading or impurity induced by magnetism. Press **Enter** to degauss the monitor. Use this function after moving the monitor or changing the direction that it is facing.

6. etc Miscellaneous

Hor. Moire   adjusts horizontal Moiré.

Ver. Moire   adjusts vertical Moiré.

If the picture is unstable when you adjust the Moiré reduction setting, over-adjustment has occurred. Please lower the Moiré reduction setting level.

OSD position   changes the OSD's position.

OSD Language:

De : Deutsch   En :English   Es : Español

Fr : Français   It : Italiano

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Note:

☞ *The setting of each parameter is represented by a numeric value and corresponding scale.*

☞ *The on-screen menu will automatically disappear after 20-second's of inactivity. If changes have been made, the monitor will automatically save them.*

Timing and Refresh Rate Setting

By making adjustments of your video card settings, you can set the timing and the refresh rate to match your requirements. Please consult your operating system's and graphics adaptor's documentation for details about how this may be done.

The monitor will automatically save the changes that you make and use the new settings whenever you turn it on. The Diamond View 1998E monitor can accept horizontal scanning frequencies ranging from 30 KHz to 98 kHz and vertical frequencies from 50 Hz to 160 Hz. However, due to the requirements of signals with different resolutions, and to avoid possible damage to your monitor, do not exceed the following maximum vertical refresh rates.

Resolution	Maximum Vertical Refresh Rate (Hz)
800 x 600	150
1024 x 768	118
1280 x 1024	88
1600 x 1200	76

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Factory Preset Timings

Mode	Resolution	Vertical Frequency (Hz)	Horizontal Frequency (kHz)
Industry	640 x 400	70	31.47
Industry	640 x 480	60	31.47
VESA	800 x 600	75	46.88
VESA	800 x 600	85	53.67
VESA	1024 x 768	75	60.02
VESA	1024 x 768	85	68.68
VESA	1280 x 1024	75	79.98
VESA	1280 x 1024	85	91.15
VESA	1600 x 1200	65	81.25

6 Troubleshooting

If you encounter any trouble using the Diamond View 1998E monitor, make sure that your monitor is properly installed. (For hardware installation, see Chapter 4 of this manual.) If the problems persist, please check this chapter for possible solutions before calling Mitsubishi Electric or one of our Authorised Service Centres.

No image is displayed

- Check that the light (LED) next to the monitor's power button is lit and is green in colour.

- If the LED is orange there is no signal from the computer and the monitor is in power saving mode. Check that the computer is switched on. Press a button on the computer keyboard or move the mouse to wake the computer. If that does not help, check that the VGA cable is securely plugged into the computer. Also check the pins of the VGA cable's connector. If any pins are bent or broken off, then contact your dealer.

- If the LED is not lit at all, check that the monitor is plugged into the power socket and that the power switch is turned on at the wall. Check that the monitor's power switch is also turned on.

- Video sync signal. The video sync signal from the graphics card must be as specified for the monitor.

The picture is scrolling or unstable.

- The most common cause of this problem is a loose VGA signal cable or connector. Check that the cable is securely connected to the computer.

- Check the VGA signal cable for damage. If any pins are bent or broken off, contact your dealer or an authorised Mitsubishi Electric service agent.

- Make sure that the graphics card settings are correct and within the monitor's specifications. Change the settings of your graphics card to values within the monitor's range.

- Remove any magnetic objects that are near the monitor. These include speakers and power supplies (AC adaptors).

Colours are impure.

- Check that the cable is securely connected to the computer.

- Check the VGA signal cable for damage. If any pins are bent or broken off, contact your dealer or an authorised Mitsubishi Electric service agent (see Chapter 8 for details).

- Check the monitor's colour settings. Press the Enter button and select the Color Settings menu. Select the Recall menu item to return to the factory preset colours and press Enter.

- Degauss the monitor using the degauss function of the monitor's On Screen Display.

- Remove any objects that can create a magnetic field that may be near the monitor. These include speakers and power supplies (AC adaptors).

The image is blurred or there is visible ghosting

- Have you used a VGA extension cable? If so, remove the extension cable and check the displayed image. Is the image quality improved? Depending on the characteristics and type of the extension cable, some blurring or distortion may occur due to conduction losses in the extension cable. You can minimise the distortion by using an extension cable with lower conduction losses.

- Have you used a VGA splitter or a video amplifier? Depending on the characteristics and type of the splitter or amplifier some blurring or distortion may occur due to the limitations of the device's bandwidth. Problems caused by a limited bandwidth will increase as the signal's resolution and refresh rate increased. If you need to use a splitter or amplifier with you monitor, make sure that it is a good quality device that has sufficient bandwidth for the graphics resolution that you need to use.

7 Specifications

Model	Diamond View 1998E

Display Characteristics

Display Type	19" (48 cm) diagonal cathode ray tube
Maximum Viewable Size	18" (45.7cm) diagonal
Dot pitch	0.25 mm
Surface coating	Anti-Glare, Anti-Reflective, Anti-Static coating

Graphics Signals

Maximum Resolution	1600 x 1200 pixels (at 75 Hz)
Recommended Resolution	1280 x 1024 pixels (at 85 Hz)
Horizontal Frequency	30 – 98 kHz
Vertical Frequency	50 - 160 Hz
Video Bandwidth	176 MHz
Microprocessor Controlled Graphics	9 factory preset timings 15 user modes
Signal Connection	15-pin mini D-sub cable
Video Input	VGA-type (15 pin mini D-sub connector)
Video Signal	RGB analog (Positive polarity) 0.7 Vpp/75 Ohm
Synchronisation	TTL separate, composite TTL
Plug & PLay	DDC-2B

User Interface

Controls   Mains power switch, On-Screen
                                                 Display with 4 control buttons

On-Screen Display Functions:

Contrast; Brightness; Vert. & Hor. Image Position and Size; Pincushion
Amplitude, Phase and Balance; Top and Bottom Corner Pincushion; Color
Balance; Degauss; Horiz. and Vert. Moire; Choice of language (6 language
OSD); OSD Position; Status Indicator

Physical Characteristics

Power Management   VESA DPMS, Energy Star

Maximum Power Consumption   110 Watts

Consumption in Power Saving   < 5 Watts
Modes

Operating Voltage   Automatic switched mode power
                                                 supply, 100 - 240 V, 50 - 60 Hz

Dimensions (W x H x D)   455 x 466 x 463 mm

Weight   20 kg

Temperature (Operating/Storage)   5 °C ~ 40 °C / -20 °C ~ 60 °C

Air Humidity (Operating/Storage)   20% ~ 90% / 10% ~ 90%

Regulatory Certification

Safety   AS/NZS 60950, UL, IEC 950,
                                                 EN 60950 (TÜV/GS),

EMI/EMC   AS/NZS 3548, Class B (C-Tick),
                                                 CISPR 22 Class B, FCC Class B

X-Ray   DHHS

Other   TÜV/Ergonomics, ISO 9241-3/7/8,
                                                 CE Mark, ISO 14000

8 Service Contacts

If problems remain after checking this manual, please contact your place of purchase or contact

Australian Service Contacts

Visit the Mitsubishi Electric Australia web site at

www.mitsubishi-electric.com.au

For details of your nearest Mitsubishi Electric Authorised Service Centre or contact the Service Department for your state:

New South Wales and Australian Capital Territory

348 Victoria Road
Rydalmere, NSW, 2116

Telephone: (02) 9684-7669

Fax: (02) 9684-7684

Queensland

1 / 104 Newmarket Road
Windsor, Qld, 4030

Telephone: (07) 3357-8877

Fax: (07) 3357-8488

South Australia and Northern Territory

77 Port Road
Hindmarsh, SA, 5007

Telephone: (08) 8340-0444

Fax: (08) 8340-0555

Victoria and Tasmania

4 / 303 Burwood Hwy
East Burwood, Vic, 3151

Telephone: (03) 9262-9899

Fax: (03) 9262-9850

Western Australia

5 / 329 Collier Road
Bassendean, WA, 6054

Telephone: (08) 9377-3411

Fax: (08) 9377-3499

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New Zealand Service Contacts

Contact:

Melco New Zealand Ltd.
1 Parliament St.
Lower Hutt
Wellington

Telephone: (04) 560-9100

Fax: (04) 560-9140

Web site: **www.melco.co.nz**